



## PATENT ABSTRACTS OF JAPAN

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## (54) THROMBIN POWDER PREPARATION

## (57) Abstract:

**PURPOSE:** To obtain a thrombin powder preparation useful for promoting hemostasia, not reducing thrombin titer, having storage stability, being readily partially injected in powder by using lactose as an excipient.

**CONSTITUTION:** Lactose is used as an excipient. For example, thrombin obtained by fractionation of plasma protein or by genetic engineering, namely thrombin

prepared by treating prothrombin purified from human plasma with thromboplastin in the presence of  $\text{Ca}^{2+}$  is used as the thrombin. Thrombin having about 100-1,000 units/mg protein specific activity is preferably used. The amount of lactose added to thrombin powder is about 50-100mg based on 500-10,000 unit thrombin, namely thrombin activity based on 1mg of the preparation can be adjusted to about 10 units. The powder preparation can be used in stick packaging and considered to be effective for clinical use.

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